

Final Report
Jobs Through Recycling Program
Hawaii Resource Exchange Facilities Program

Goals

In addition to the overall goals of job creation and waste diversion through development of reuse facilities, the following specific goals of DBEDT's program proposed were:

- **Statewide:** Develop a network, at both the state and county levels, of public and private sector supporters for reuse facilities. Institutionalized support from this network will help enable materials exchange programs in the long term to become self-sufficient, but not overly dependent on government support following the end of the grant period.
- **Oahu:** Develop an operating reuse facility that will be largely self-supporting by the end of the project period.
- **Maui:** Provide technical assistance and/or support for operations of an interim reuse program or facility.
- **Hawaii:** Conduct a community assessment to identify potential remanufacturing/recycling participants in a materials exchange program; identify and secure a county facility or facilities; potentially provide partial funding support for startup of facility operations.
- **Kauai:** Support the planned reuse facility according to recommendations from County government and community stakeholders.

Introduction

Grant funds were initially used in pursuit of these goals to support evaluation, planning, and coordination of support from a network of participants developed in support of the project. The support for operations were limited so as not to make fledgling exchange operators dependent upon major governmental financial support beyond the start-up period. Though the project period went beyond what was expected, DBEDT was able to support the development of an Oahu Reuse Facility to establish linkages and networks that will sustain the projects and programs well beyond the grant period.

Establishment of a network of supporters for this program was facilitated by development of a statewide reuse network, Aloha Shares and DBEDT's participation in an industry-led effort, Recycling Industry Coalition of Hawaii. DBEDT supported and participated in the network and coalition and will continue to work together to help institutionalize support for both reuse and recycling, as well as buying recycled in the State of Hawaii.

During the cooperative agreement period, DBEDT has worked diligently to develop partnerships with public, private, and non-profit sector entities to cultivate and expand the statewide recycling and reuse network. These partnerships have resulted in the establishment of projects and programs that will continue far beyond the life of this particular project. Thanks to the support from the US EPA, this project has fulfilled our initial expectations and goals, and taken the State of Hawaii closer to achieving its recycling and reuse goals.

Overview

Over the years, DBEDT worked closely with State and local government entities, the recycling industry, and a statewide network of non-profit groups to assess and appropriately direct the use of funds for this

project. Given the fluctuations in the state of the economy, and the availability of material, facilities, as well as organizational and operational capacity, DBEDT and our partners were able to accomplish the following:

- With regard to statewide and county-level coordination, DBEDT used state and US Department of Energy funds in the interim before Jobs Through Recycling funds were received to fund a part-time coordinator to conduct outreach and planning activities, mobilize and coordinate contributor resources, and provide other forms of technical assistance as appropriate. EPA funds were used to fund a full-time coordinator to continue these tasks and activities.
- With regard to the materials to be handled, reusable construction materials and residential furniture, fixtures and equipment (FF&E) were the focus for these facilities. This focus was the least likely to result in competition with existing businesses, shows good potential for being an effective means to divert waste from Hawaii's landfills, and strengthens private and non-profit partnerships which allows unneeded waste materials to be donated to needy organizations and families while providing tax benefits to businesses that donate material.
- With regard to the appropriate scale and scope of operations for each facility, and to the role of grant funds, DBEDT through funding from the US EPA and State of Hawaii funds supported establishment of the Aloha Shares non-profit reuse network, Baseyard Hawaii, the Hawaii BuiltGreen Program (with the Building Industry Association (BIA) of Hawaii and the American Institute of Architects (AIA)-Honolulu), the Green Business/Hotel Program (with the Chamber of Commerce of Hawaii, the Department of Health, and the Hawaii Hotel Association), as well as Green Building and sustainable design technical assistance in areas such as construction and demolition waste minimization (See the attached Appendix A) and recycled products procurement (with the General Contractors Association of Hawaii, BIA, AIA, PACDIV, Army Corps of Engineers, the Air Force, and the Marine Corps.) and supported the following:

County of Kauai:

The County of Kauai opened the Kauai Resource Center on April 20, 2002. Support for the County's new waste diversion facility in the form of development of promotional and public education programs, and for technical assistance was provided through this agreement. The KRC has created 4 full-time jobs, training of those 4 employees, provided a resource library a meeting room, an office for the County's Recycling Coordinator, and diverted 88 tons of material during its first quarter of operation. Three new businesses have gone into business as a result of the KRC, Recycle Kauai, Kauai Residential Recycling Services, and Haina Recycling, with an additional 5 full-time jobs resulting. Also, 8000 tires and 36,500 pallets were diverted from the landfill.

DBEDT worked closely with the County of Kauai recycling coordinator to develop promotional materials for the resource center and provide technical assistance with vermiculture training for Kauai's agricultural and other interested entities. Job training activities at this facility and at the Habitat for Humanity's Restore on Kauai were established. DBEDT also supported the development of promotional material for and Kauai Habitat for Humanity's participation in the State Reuse Network Forums held on Kauai, Maui, Hawaii, and Oahu.

City and County of Honolulu:

The population density on the island of Oahu is great enough to support a full-time or nearly full-time operation handling a relatively broad range of materials. Through funding from the US EPA, DBEDT worked with Nanakuli Neighborhood Housing Services to establish Baseyard Hawaii, a construction and demolition reuse facility on Sand Island, Oahu. Support for developing an operations manual, database of materials, promotional brochure and outreach efforts to establish

partnerships with construction and demolition industry partners was provided are resulted in the diversion of 880 tons of C&D material and created 1.5 full-time jobs. Baseyard Hawaii opened its doors on January 4, 2002. Job training activities at this facility have taken place, have trained 4 employees/volunteers, and will continue to be expanded through support from federal, state agencies, industry, and other non-profit organizations.

State of Hawaii funds were used to support the Building Industry Association (BIA) of Hawaii's Green Building Conference in May 2001. Construction and Demolition (C&D) reuse and recycling case studies and facilities were featured during the breakout sessions. Additionally, the initial concept and workshop for the BIA's BuiltGreen program resulted from this effort. (See attached Appendix B)

Construction and Demolition Waste Management Technical Assistance Project:

Designed to provide technical assistance to construction and demolition industry professionals that would result in case study information on material diverted from the landfill and potential and real cost savings, the project supports the Clean Hawaii Center's (CHC) efforts to minimize construction and demolition waste and to promote jobsite recycling. Specifically, CHC provided technical assistance in Construction and Demolition Waste Management to several selected interested developer/contractors:

- Hawaiian Dredging - Saved more than \$31,000 in disposal costs, recycled nearly 104 tons of material, produced \$2,500 in revenue, reconstructed a metal shed for the Disabled Veterans, and earned public recognition for their contribution to the community.
- Island Demo - Diverted 700 tons of demolition debris from the landfills, with 100 tons of material reused. Saved 185 tons of concrete and 468 tons of metals...salvaged 51 tons of other building products such as pipes, doors, and cabinets...and donated 18 tons of products to Waimanalo Plant research and Development.
- Kaneohe Marine Corps Base Hawaii - Donated 40 tons of furniture valued at \$118,000 to local homeless shelters for reuse, saved nearly \$80,000 in disposal costs, and gained positive recognition for assisting local charities and protecting the environment.
- Gentry Homes - Reduced waste disposal costs from \$589 to \$280 per single family home, saving approximately \$64,000/year and donated reusable items to UH, Hawaii Homeless, and other charities.

In support of the direct technical assistance provided to the four participants, at least two educational events promoting Construction and Demolition Waste Management were conducted. One forum was held on Oahu and another on the Island of Kauai. In October 2000, CHC participated by providing an update on the C&D Technical Assistance and Case Studies Project in a special session of the General Contractors Association's (GCA) Environmental Committee and other interested parties, in 1999, 2000, 2001, and 2002 CHC coordinated site tours to the C&D recycling and reuse facilities as part of the Annual City and County's Tour de Trash.

County of Maui:

The County of Maui continues to plan for a new materials recovery facility (MRF) at the Central Maui landfill, and recycling staff of the County Department of Public Works (DPW) are working to ensure that plans for the MRF include space for reuse. Meetings between DPW recycling staff, local recycling non-profits, industry and DBEDT produced the Paint Exchange Program, diverting 2700

gallons of paint from the landfill, and the establishment of Aloha Shares, a statewide non-profit reuse network. Establishment of a small-scale interim facility that stores particularly valuable reuse items has been established by Maui's Community Work Day Program. DPW has identified an upcountry operation in Kula that handles and resells other larger upscale furniture, fixtures, and equipment.

State of Hawaii funds were used to support a construction and demolition (C&D) pilot project in Lahaina, Maui, to study the feasibility of jobsite recycling and to develop a C&D jobsite recycling and reuse guide with the County of Maui. The pilot project resulted in the diversion of approximately 80 tons of material from the landfill and a resource guide for contractors on Maui.

County of Hawaii:

Imminent closure of the Hilo landfill has created an increased demand for alternatives to transporting discards to the Kona side of the island, and generated support for a new type of transfer station in the Hilo area. With support from the County and local community and business groups, DBEDT used state funds to conduct a community assessment of remanufacturing/recycling participants and other possible businesses that might participate in for a materials exchange program. The project coordinator worked to establish and coordinate contributions to expand the network of supporters, and to identify other prospective participants in an exchange program.

The Keaau Recycling and Reuse Pilot Project was funded by the US EPA under another grant to the County of Hawaii and the Hawaii Island Economic Development Board. This project had its grand opening on March 29, 2002. While DBEDT did not fund this project, it did provide technical assistance to the county's project team in the form of presentations, contacts, resources, site tours of facilities on Oahu, and the inclusion of the pilot project team in the Statewide Reuse Network Forums on the Big Island. There have been discussions by the County of Hawaii and non-profits organizations related to the development of a C&D reuse facility on the Big Island.

Interrelationships with Other Departments, Programs, Governments and Organizations:

DBEDT works closely with the US EPA and Department of Health on promoting environmental and sustainable business practices and demonstration projects. Additionally, DBEDT works with industry groups such as the Building Industry Association of Hawaii, the General Contractors Association, the Hawaii Hotels Association, the American Institute of Architects – Honolulu, Chamber of Commerce of Hawaii, and state agencies such as DAGS, DOT, DHHL, DLNR, HCDCH, and HCDA as well as the University of Hawaii, and non-profit community-based organizations in support of its programs and projects.

Summary:

The Jobs Through Recycling Grant (\$236,000) from the US EPA helped the State of Hawaii to establish Resource Exchange Facilities in Hawaii, diverting 1,866 tons, or 3.732 million pounds of construction and demolition material and FF&E, 2,700 gallons of paint, 8000 tires and 36,500 pallets from the landfill, creating 6 FTE jobs, 5 FTE spin-off jobs, and an industry network. The support also resulted in the following:

- Construction and Demolition (C&D) Waste Minimization Workshops
- Statewide Reuse Workshops and Forums
- Kauai County's Kauai Resource Center Promotion and Outreach
- Maui County's Paint Exchange Program and C&D Technical assistance Project
- Nanakuli Neighborhood Housing Services' Baseyard Hawaii on Sand Island Oahu
- C&D Tech. Assistance, Construction Waste Mgmt Guide, Fact Sheets & Directory

Kauai Habitat for Humanity Restore Technical Assistance, Promotion and Outreach
Aloha Shares Non-profit Reuse Network, Forums, and Statewide Directory
Community Work Day's Reuse Technical Assistance and Outreach
Community Helping Schools and Aloha Shares Promotion
Staff support for the Recycling Industry Coalition of Hawaii

The Jobs Through Recycling Grant/Affirmative Procurement (\$30,000) from the US EPA helped the State of Hawaii to increase State buy recycled initiatives in Hawaii in cooperation with the Departments of Accounting and General Services and Health by developing resources, for purchasing agencies and conduct technical assistance to a state agency resulted in the development and distribution of the following:

Buy Recycled in Hawaii Directory of Products
Buy Recycled Fact Sheet, Guide, and Website
DBEDT also provided Technical assistance to State of Hawaii agencies such as DAGS and DOT.

Other related events and projects:

2001 Green Building Conference and Expo
2002 Environmental Purchasing Conference and Expo
2002 Environmental Recognition and Green Business/Hotel Program
2000/1 Recycling Activity Book for Elementary Schools Statewide w/Hawaii Nature Ctr.
AIA – Honolulu Green House and Green Office Exhibit and AIA's LEED-Commercial Interiors Pilot

Participation in Sustainable Design Charrettes for Kaneohe Marine Corps Base Hawaii, Hickam Air Force Base, and the Sustainable Design Training at the US Army Corps of Engineers

List of DBEDT contacts and partners:

DBEDT listed these contacts in its initial workplan for this project:

- County of Hawaii, Department of Public Works
- Recycle Hawai'i (a non-profit recycling group)
- Various local recycling businesses on the Island of Hawaii
- County of Kauai, Office of Economic Development
- County of Kauai, Department of Public Works
- Community Partnering Committee (advisory group to County of Kauai for reuse facility planning)
- County of Maui, Department of Housing and Human Concerns
- County of Maui, Department of Public Works and Waste Management
- City and County of Honolulu, Department of Housing and Community Development
- City and County of Honolulu, Department of Public Works
- State Department of Hawaiian Homelands
- State Office of Hawaiian Affairs
- Salvation Army
- Rural Community Assistance Corporation
- University of Hawaii, College of Business Administration
- Dr. Dan Knapp, Urban Ore, Inc. (day-long meeting at DOH w/ state and local officials and community groups)
- Goodwill Industries
- State Surplus Property Program
- Habitat for Humanity
- Demolition contractors on Oahu

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- Building Industry Association of Hawaii

Additional Contacts and partnerships established during the grant period include the following:

- General Contractors Association of Hawaii - Environment Committee
- American Institute of Architects Honolulu - Committee on the Environment
- National Association of Home Builders Research Center - C&D Waste Minimization
- Maui Recycling Group and the Aloha Shares Network
- LA Shares and the Statewide Reuse Network
- Nanakuli Neighborhood Housing Services and Baseyard Hawaii
- Chamber of Commerce of Hawaii and the DOH's Pollution Prevention Program, and
- Hawaii Hotel Association and the Green Business/Hotel Program
- Building Owners and Managers Association and planning for a Green Office Award
- University of Hawaii's Sustainability Initiative – Materials and Recycling Committee
- Community Work Day
- Community Helping Schools
- Hawaii Nature Center and Recycling Activity Books
- Recycling Industry Coalition of Hawaii (See attached Appendix C for further information)

DBEDT, on behalf of the State of Hawaii expresses gratitude and appreciation to the US EPA for supporting the development of Resource Exchange facilities, C&D Waste Minimization, and Buy Recycled in Hawaii procurement resource and program development, promoting partnership building, diversion of reusable and recyclable material from the State of Hawaii's landfills, and closing the loop by promoting the purchasing of recycled products in Hawaii.

Without this valuable support, the State of Hawaii not have been able to move closer to achieving its diversion and purchasing goals.